

Monofrax® CS-3 Alumina-Zirconia-Silica (AZS) Fused Cast Refractory

Product Description

Monofrax® CS-3 is the most versatile and widely used of the three Monofrax AZS compositions. It has the lowest ZrO_2 concentration among AZS refractories, yet it offers excellent corrosion resistance to soda lime glass melts.

Manufacturing Description

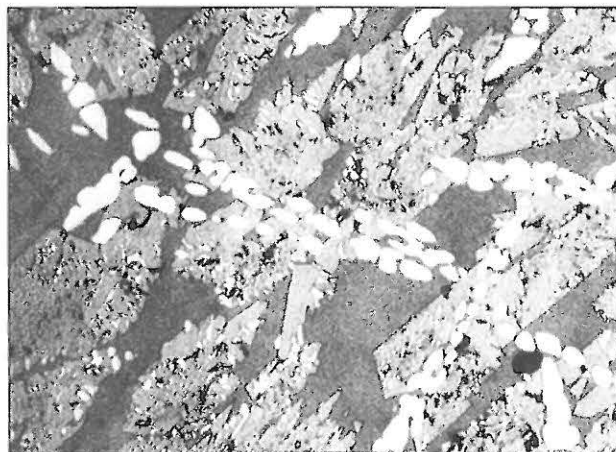
Monofrax CS-3 is melted and oxidized using a patented process in an electric arc furnace and poured into sand molds. This composition is available in many shapes and hundreds of different sizes, produced with and without casting voids. The annealing process is optimized to achieve superior surface quality and overall physical and chemical properties. Advanced, state-of-the-art grinding equipment is used to provide excellent joint quality.

Typical Chemistry

ZrO_2	34%
Al_2O_3	48%
SiO_2	15%
Na_2O	<2%
Other.....	<1%

Typical Applications

- Glass furnace
 - Sidewalls and pavers
 - Superstructure
 - Channels
 - Throat
- Ceramic frit furnace blocks
- Sodium silicate furnace linings
- Abrasion and wear resistant blocks.



Micrograph Description

This photomicrograph shows the alumina, zirconia and silica phases present in CS-3. The light gray alumina forms flecked with white zirconia crystallites comprise the composite crystal phase. White chains represent the zirconia dendrites distributed through this material. These crystalline phases, solidified from the melt, are fixed in a silica glassy matrix (dark gray areas).



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